STN- Structure Search 9.4.05

10/803,724

Inventors

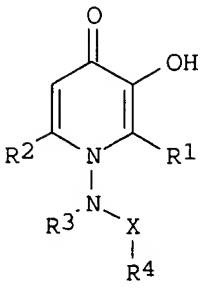
=> d ibib abs hitstr 1-7

L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:633411 CAPLUS
DOCUMENT NUMBER: 139:179975
TITLE: Preparation of N-substituted 3-hydroxy-4-pyridinones and metal chelates as pharmaceuticals
INVENTOR(S): Liu, Shuang
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

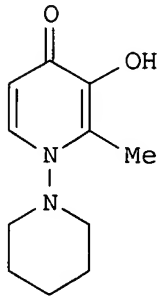
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003065991	A2	20030814	WO 2003-US3375	20030205
WO 2003065991	A3	20031231		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003170174	A1	20030911	US 2003-358835	20030205
US 6825204	B2	20041130		
EP 1474396	A2	20041110	EP 2003-737635	20030205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004176326	A1	20040909	US 2004-803724	20040318

PRIORITY APPLN. INFO.:
US 2002-354339P P 20020205
US 2003-358835 A3 20030205
WO 2003-US3375 W 20030205

OTHER SOURCE(S): MARPAT 139:179975
GI



I



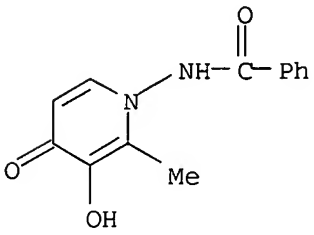
II

AB N-substituted 3-hydroxy-4-pyridinones of formula I [X = CH2, CO, CS, P(O)dialkyl, SO2, C(NH)NH, CONH, CSNH; R1, R2 = H, alkyl, aryl, heteroaryl, etc.; R3, R4 = alkyl, aryl, heteroaryl, etc.; R3R4 = alkylene, heteroalkylene] and metal chelates are prepared The N-substituted 3-hydroxy-4-pyridinones and their metal chelates are used as

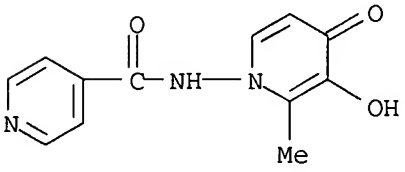
pharmaceutical agents for the treatment of diseases, such as parasitic and viral infections, conditions associated with inflammation and infection, and conditions mediated by cell-proliferation or collagen formation, or as radiopharmaceuticals and MRI contrast agents. Thus, II was prepd from maltol and 1-aminopiperidine, then chelated with 111InCl3.

IT **577973-72-9P 577973-73-0P 577973-74-1P 577973-75-2P 577973-76-3P**
RL: DGN (Diagnostic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of hydroxypyridinones and metal chelates as pharmaceuticals)

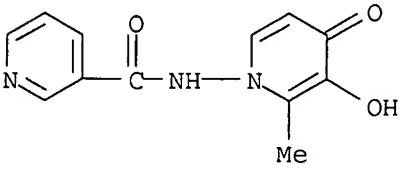
RN 577973-72-9 CAPLUS
CN Benzamide, N-(3-hydroxy-2-methyl-4-oxo-1(4H)-pyridinyl)- (9CI) (CA INDEX NAME)



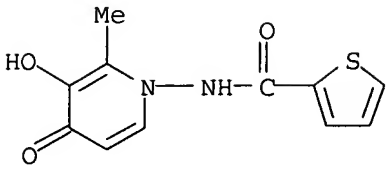
RN 577973-73-0 CAPLUS
CN 4-Pyridinecarboxamide, N-(3-hydroxy-2-methyl-4-oxo-1(4H)-pyridinyl)- (9CI) (CA INDEX NAME)



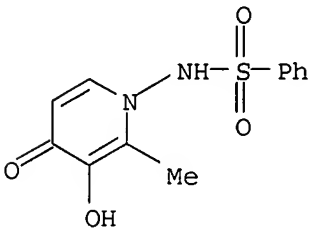
RN 577973-74-1 CAPLUS
CN 3-Pyridinecarboxamide, N-(3-hydroxy-2-methyl-4-oxo-1(4H)-pyridinyl)- (9CI) (CA INDEX NAME)



RN 577973-75-2 CAPLUS
CN 2-Thiophenecarboxamide, N-(3-hydroxy-2-methyl-4-oxo-1(4H)-pyridinyl)- (9CI) (CA INDEX NAME)



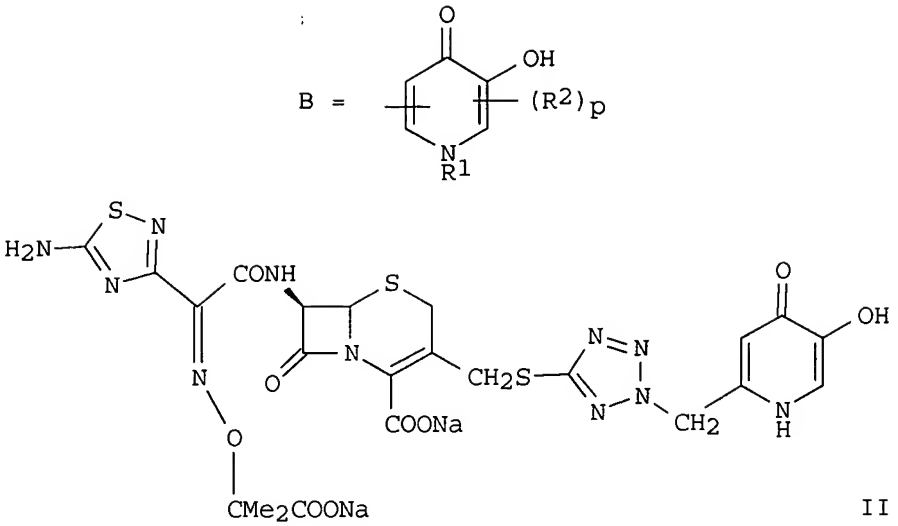
RN 577973-76-3 CAPLUS
CN Benzenesulfonamide, N-(3-hydroxy-2-methyl-4-oxo-1(4H)-pyridinyl)- (9CI) (CA INDEX NAME)



L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:887972 CAPLUS
DOCUMENT NUMBER: 123:285638
TITLE: Preparation of cephem derivatives as antibacterials
INVENTOR(S): Sendai, Michuki; Nakao, Masafumi; Ishibashi, Yukio
PATENT ASSIGNEE(S): Takeda Chemical Industries Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 07179474	A2	19950718	JP 1994-268316		19941005
PRIORITY APPLN. INFO.:			JP 1993-274945	A	19931005

OTHER SOURCE(S): MARPAT 123:285638
GI



II

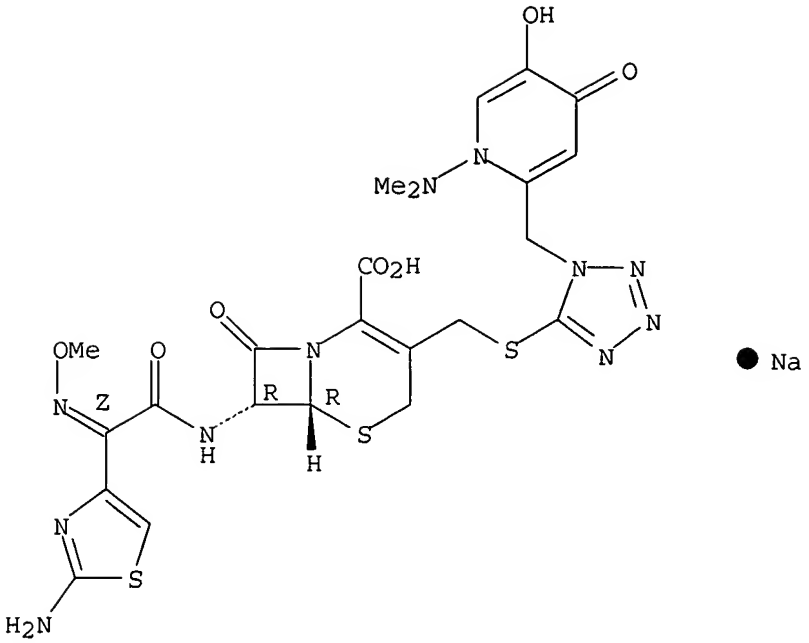
AB Cephems substituted at the 3 position with the group -CH2-S-A-Y-B [A = (un)substituted bivalent aromatic radical; R1 = H, (un)substituted alkyl, (un)substituted cycloalkyl, (un)substituted amino; R2 = OH, (un)substituted alkyl, (un)substituted alkoxy; p = 0, 1, 2; the OH may be protected; Y = bond, S, O, NH, CONH, or bivalent hydrocarbyl radical] are prepared Thus, sodium 7β-[2-(5-amino-1,2,4-thiadiazol-3-yl)-(Z)-2-[[[1-(4-methoxybenzyloxycarbonyl)-1-methylethoxy]imino]acetamido]]-3-(hydroxymethyl)-3-cephem-4-carboxylate was reacted with 5-mercapto-2-[[5-(4-methoxybenzyloxy)-4-pyridon-2-yl]methyl]-2H-tetrazole in DMF containing o-phenylene phosphate at room temperature for 2 h followed by treatment with CF_3CO_2H to give the title compound I. In an in vitro study this had an MIC of 0.2 μg/mL against Pseudomonas aeruginosa.

IT **169552-11-8P 169552-12-9P 169552-13-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cephem derivs. as antibacterials)

RN 169552-11-8 CAPLUS

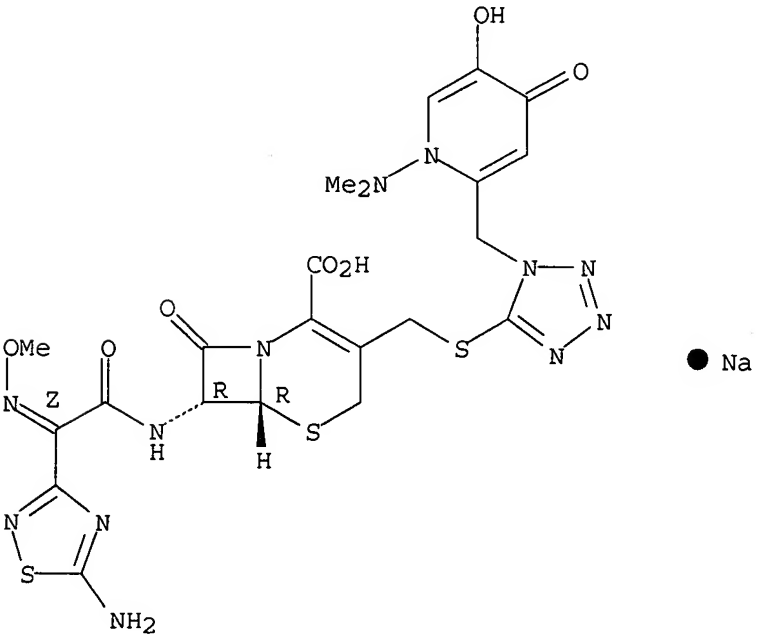
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[[[1-[[1-(dimethylamino)-1,4-dihydro-5-hydroxy-4-oxo-2-pyridinyl]methyl]-1H-tetrazol-5-yl]thio]methyl]-8-oxo-, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 169552-12-9 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(5-amino-1,2,4-thiadiazol-3-yl)(methoxyimino)acetyl]amino]-3-[[[1-[[1-(dimethylamino)-1,4-dihydro-5-hydroxy-4-oxo-2-pyridinyl]methyl]-1H-tetrazol-5-yl]thio]methyl]-8-oxo-, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

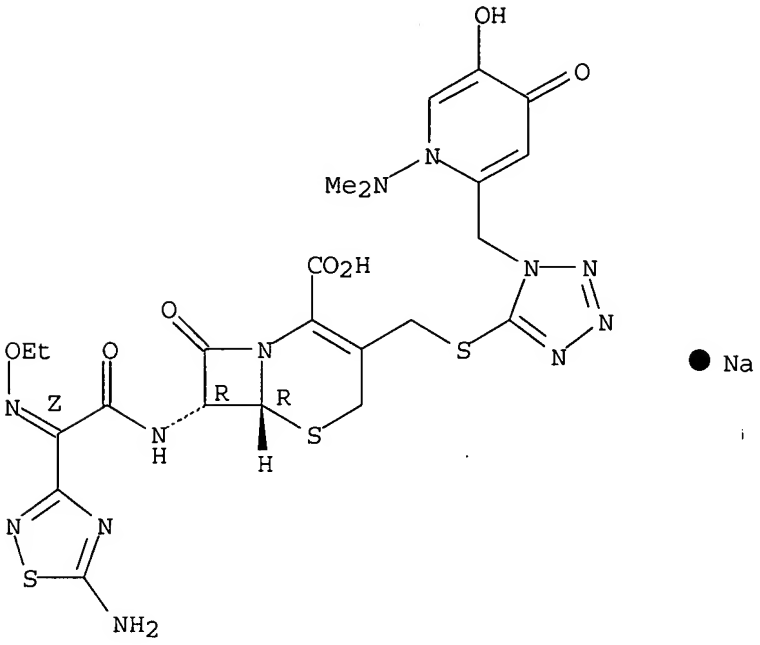
Absolute stereochemistry.
Double bond geometry as shown.



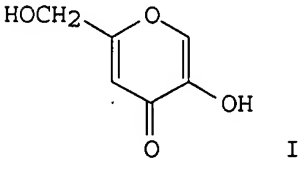
RN 169552-13-0 CAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(5-amino-1,2,4-thiadiazol-3-yl)(ethoxyimino)acetyl]amino]-3-[[[1-[[1-(dimethylamino)-1,4-dihydro-5-hydroxy-4-oxo-2-pyridinyl]methyl]-1H-tetrazol-5-yl]thio]methyl]-8-oxo-, monosodium salt, [6R-[6α,7β(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:77740 CAPLUS
DOCUMENT NUMBER: 112:77740
TITLE: Heterocycles from carbohydrate precursors. Perspectives and mechanistic aspects of the action of hydrazines on kojic acid
AUTHOR(S): El Ashry, El Sayed H.; El Kilany, Yeldez; Mousaad, Ahmed
CORPORATE SOURCE: Fac. Sci., Alexandria Univ., Alexandria, Egypt
SOURCE: Journal of Carbohydrate Chemistry (1989), 8(3), 485-95
CODEN: JCACDM; ISSN: 0732-8303
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 112:77740
GI



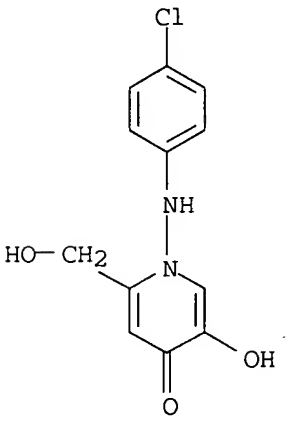
I

AB The mode of action of arylhydrazines on kojic acid (I) was investigated. Some novel types of compds. were isolated, and their structures were determined The mechanism of the reactions is discussed.

IT **103596-93-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 103596-93-6 CAPLUS

CN 4(1H)-Pyridinone, 1-[(4-chlorophenyl)amino]-5-hydroxy-2-(hydroxymethyl)-(9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:478852 CAPLUS

DOCUMENT NUMBER: 105:78852

TITLE: Reaction of kojic acid with arylhydrzines

AUTHOR(S): El Ashry, El Sayed H.; El Kilany, Yeldez; Mousaad, Ahmed

CORPORATE SOURCE: Fac. Sci., Alexandria Univ., Alexandria, Egypt

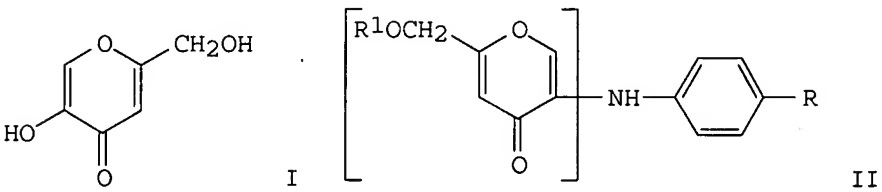
SOURCE: Acta Pharmaceutica Jugoslavica (1986), 36(1), 73-4
CODEN: APJUA8; ISSN: 0001-6667

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 105:78852

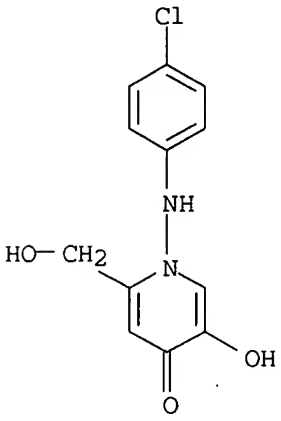
GI



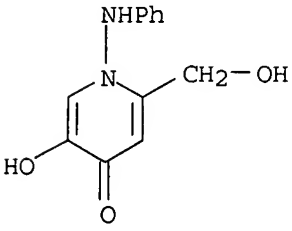
AB Reaction of kojic acid (I) with p-bromo- or p-chlorophenylhydrazine gave rise to a number of products. One of them was II (R = Br; R1 = H) the structure of which was confirmed by detailed NMR anal. The Cl analog II (R = Cl; R1 = H) gave similar NMR spectra and on acetylation gave II (R = Cl; R1 = Ac), thus confirming the structure. Other products obtained from the reaction are described.

IT **103596-93-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)
RN 103596-93-6 CAPLUS
CN 4(1H)-Pyridinone, 1-[(4-chlorophenyl)amino]-5-hydroxy-2-(hydroxymethyl)- (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1974:491412 CAPLUS
DOCUMENT NUMBER: 81:91412
TITLE: Mode of action of phenylhydrazine on kojic acid
AUTHOR(S): El Ashry, El Sayed H.
CORPORATE SOURCE: Fac. Sci., Alexandria Univ., Alexandria, Egypt
SOURCE: Carbohydrate Research (1974), 33(1), 178-83
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Treating kojic acid (I) with 20 ml PhNHNH2 (II) in AcOH 1 hr at 100° gave isomeric 3-hydroxymethyl-5-(2-hydroxy-1-oxoethyl)-1-phenylpyrazole phenylhydrazone, 5-(1,2-dioxoethyl)-3-(hydroxymethyl)-1-phenylpyrazole bis(phenylhydrazone), 1-anilino-5-hydroxy-2-(hydroxymethyl)-4-pyridinone and an un-identified adduct of I and II. Structures were established by oxidative degradation and by NMR and mass spectrometry.
IT **54345-81-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and mass spectrum of)
RN 54345-81-2 CAPLUS
CN 4(1H)-Pyridinone, 5-hydroxy-2-(hydroxymethyl)-1-(phenylamino)- (9CI) (CA INDEX NAME)

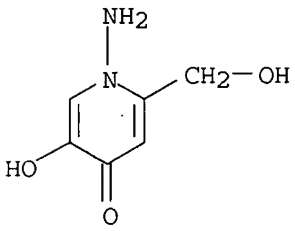


L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1961:8151 CAPLUS
DOCUMENT NUMBER: 55:8151

ORIGINAL REFERENCE NO.: 55:1641i,1642a-c
TITLE: Reactions of kojic acid with hydrazine
AUTHOR(S): Marxer, A.; Thomas, A. F.
CORPORATE SOURCE: CIBA Akt.-Ges., Basel, Switz.
SOURCE: Chimia (1960), 14, 126-7
CODEN: CHIMAD; ISSN: 0009-4293
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Free kojic acid (I) reacts with hydrazine (II) via an intermediate opening of the pyran ring and subsequent closure in the 2-5 positions to form 3,6-bis(hydroxymethyl)-4(1H)-pyridazinone, along with the hydrazone of (3-hydroxymethyl-5-pyrazolyl)hydroxyacetaldehyde resulting from inclusion of II between positions 2 and 4. The hydroxypyrazole, which could result from addition of II to positions 4 and 6 of the same intermediate, cannot be detected. If both (or only the acid) OH groups of I are blocked by etherification, II effects ring closure by reaction with positions 2 and 6, yielding ethers of 2-hydroxymethyl-5-hydroxy-N-amino-4-pyridinone, and also by reaction between positions 2 and 4, yielding a hydrazone of an etherified pyrazolylacetaldehyde (but not by reaction with positions 4 and 6). Neither a diazepinone nor a bis-pyridinone can be found. I reacts with phenylhydrazine (or methylhydrazine) to yield a red crystalline compound (suggested structure, 2-hydroxymethyl-5-phenylazo-N-phenylamino-4-pyridinone), along with the phenylhydrazone of (1-phenylpyrazolyl)hydroxyacetaldehyde.

IT **98135-05-8**, 4(1H)-Pyridone, 1-amino-5-hydroxy-2-(hydroxymethyl)- (derivs.)
RN 98135-05-8 CAPLUS
CN 4(1H)-Pyridone, 1-amino-5-hydroxy-2-(hydroxymethyl)- (6CI) (CA INDEX NAME)



L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1960:97564 CAPLUS
DOCUMENT NUMBER: 54:97564
ORIGINAL REFERENCE NO.: 54:18500i,18501a-i,18502a-g
TITLE: Chemotherapeutic studies in the heterocyclic series. XXX. Reaction of kojic acid with hydrazine. 2. Reaction of kojic acid ethers with hydrazine
AUTHOR(S): Thomas, A. F.; Marxer, A.
CORPORATE SOURCE: C I B A Ltd. Basel, Switz.
SOURCE: Helvetica Chimica Acta (1960), 43, 469-77
CODEN: HCACAV; ISSN: 0018-019X
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 54:97564

GI For diagram(s), see printed CA Issue.

AB cf. CA 54, 12133h. The reaction of kojic acid (I) 5-mono- and α,5-diethers with N2H4.H2O (II) gave the corresponding 1-amino-4-pyridinones, as well as 1 of the 2 possible pyrazole derivs. The structures of the compds. were discussed. (corrected m.ps. given). Me2SO4 (126 g.) added dropwise during 1 hr. to 142 g. I in 620 ml. 10% aqueous KOH

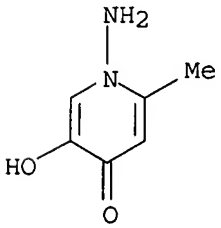
with stirring (occasional cooling to keep the temperature below 25°), after 1 hr. the mixture treated with an addnl. 620 ml. 10% aqueous KOH, 126 g. Me2SO4 added dropwise at room temperature, the mixture heated slowly to 50°, allowed to cool to room temperature, treated with 310 ml. 10% aqueous KOH and then with 63 g. Me2SO4, heated to 50°, allowed to stand overnight, made strongly alkaline with solid KOH, extracted with CHCl3, and the extract evaporated gave 94 g. O.C(CH2OMe):CH.CO.C(OMe):CH (III), m. 90-1° (PhMe). III (34 g.), 24 ml. II, and 100 ml. MeOH refluxed 30 min., the mixture concentrated somewhat, diluted with Et2O, and the crude product recrystd. from EtOH and a little Et2O gave 4.5 g. H2NN.C(CH2OMe):CH.CO.C(OMe):CH (IV), m. 183-5°; picrate m. 164-6° (aqueous EtOH). The mother liquor from III evaporated to dryness, the residue (28 g.) dissolved in 300 ml. MeOH, the solution treated with NH3 during 2-3 min., the mixture hydrogenated at 70 atmospheric and 90° with 3-4 g. Raney Ni (4700 ml. H absorbed), filtered, the filtrate evaporated, and the residue distilled in vacuo gave 15 g. NH.N:C(CH2OMe).CH:CCH(OMe)CH2NH2 (V), b0.3 170°; dioxalate m. 94-6° (EtOH-EtOAc). V (1.5 g.) and 10 g. KMnO4 in 75 ml. H2O heated 2 hrs. on a H2O bath, the mixture filtered, the filtrate concentrated somewhat, treated with concentrated HCl, and the precipitate recrystd. from H2O gave NH.N:C(CO2H).CH:CCO2H (VI), m. 295-7° (decomposition). IV (1.6 g.) in 10 ml. C5H5N treated with 1 ml. Ac2O, the mixture heated until complete solution occurred, the solution allowed to stand overnight at room temperature, evaporated, and the product recrystd. from Me2CO gave the 1-Ac derivative of IV, m. 207°. I (14.2 g.) and 13 ml. PhCH2Cl added to 2.3 g. Na dissolved in 200 ml. MeOH, the mixture refluxed 3 hrs., poured into 1 l. H2O, and the resulting precipitate recrystd. from EtOH gave 22 g. O.C(CH2OH):CH.CO.C(OCH2Ph):CH (VII), m. 133°. VII (35 g.) and 18.3 ml. II in 250 ml. MeOH refluxed 30 min., concentrated somewhat, diluted with Et2O, and the product recrystd. from EtOH gave 6 g. H2NN.C(CH2OH):CH.CO.C(OR):CH (VIII) (R = CH2Ph) (IX), m. 174°. The mother liquor from IX concentrated, allowed to stand several weeks, the precipitate (12 g.) washed with EtOH, and recrystd. twice from MeOH-Et2O gave NH.N:C(CH2OH).CH:CCH(OCH2Ph)CH:NNH 2 (X), m. 150-2°. X oxidized with aqueous KMnO4 as above, the product sublimed at 110°/15 mm. (BzOH sublimed), and the residue recrystd. from H2O gave VI. IX (1.6 g.) treated with 1.8 g. (EtCO)2O in C5H5N and the product recrystd. from EtOH gave 1,2-di-EtCO derivative of IX, m. 154-5°. IX (4.6 g.) hydrogenated with 2% Pd-C in EtOH (415 ml. H absorbed in 38 min.), the catalyst filtered off, extracted with boiling EtOH, and the combined EtOH solns. concentrated somewhat and cooled gave 2.48 g. VIII (R = H), m. 239-48° (EtOH). IX (3.5 g.) treated with 6 ml. SOCl2, after 2 hrs. the unreacted SOCl2 washed out with petr. ether, and the product recrystd. from EtOH gave 4.0 g. crude H2NN.C(CH2Cl):CH.CO.C(OCH2Ph):CH (XI) HCl salt (XII), m. 209° (EtOH). Na2CO3 (2N) added to aqueous XII at 50° gave XI, m. 157° (EtOH-petr. ether). O.C(CH2Cl):CH.CO.C(OH):CH (Yabuta, CA 18, 1665) (45 g.) hydrogenated in MeOH with 5 g. Pd-C in the presence of 40 g. NaOAc (after absorption of 6650 ml. H, the hydrogenation was terminated), the mixture filtered, the filtrate treated with 12.6 g. Na in 120 ml. MeOH and 35 g. PhCH2Cl, the mixture refluxed 4 hrs., concentrated, diluted with 1.5 l. H2O, and the product isolated (after adding EtOAc) gave 45 g. crude O.CMe:CH.COC(OCH2Ph):CH (XIII), anal. sample m. 89-90° (petr. ether). XIII (10.5 g.), 6 ml. I, and 50 ml. MeOH refluxed 1 hr. and diluted with EtOAc gave 2 g. H2NN.CMe:CH.CO.C(OR):CH (XIV) (R = CH2Ph) (XV), m. 195° (decomposition) (EtOH-EtOAc); acetate m. 206° (EtOH-Et2O). XII (1.1 g.) and 3 g. NaOAc in 30 ml. EtOH and 30 ml. AcOH hydrogenated

over 0.3 g. Pd-C (185 ml. H absorbed), the mixture concentrated, the residue extracted (Soxhlet) with EtOAc, and the extract allowed to stand gave 300 mg. XIV (R = H) (XVI), m. 248-50° (EtOH-EtOAc). XV (340 mg.) hydrogenated over Pd-C in EtOH gave XVI. IX (2.46 g.) suspended in 50 ml. EtOH and 50 ml. 2N HCl, the mixture treated dropwise at 0° with 0.75 g. $NaNO_2$ in 10 ml. H_2O with stirring (vibromixer), the solution brought slowly to room temperature, after 2 hrs. neutralized with aqueous NH_3, and the precipitate (2.15 g.) filtered off and crystallized (EtOH) gave NH.C(CH2OH):CH.CO.C(OR):CH (XVII) (R = CH2Ph) (XVIII), m. 224-6°. VII (10 g.) dissolved in 100 ml. concentrated aqueous NH_3 and 20 ml. EtOH, the solution refluxed 5 hrs. (evaporated NH_3 occasionally replaced), and the precipitate (9 g.) filtered off and recrystd. (EtOH) gave XVIII. XVIII (from either preparation) (2 g.) in EtOH shaken with H over 10% Pd-C (after 15 min. 205 ml. H absorbed), the catalyst filtered off, extracted several times with boiling EtOH, the combined filtrates concentrated, and the residue (0.98 g.) recrystd. from MeOH gave XVII (R = H), m. 246° (decomposition). IX (0.5 g.) and 0.25 g. BzH in 20 ml. MeOH refluxed 15 min., treated with a drop of Ac_2O, the solution refluxed an addnl. 2 hrs., diluted with H_2O, the precipitated oil allowed to stand 24 hrs., and the resulting solid (0.3 g.) crystallized twice from aqueous EtOH gave R':NN.C(CH2OH):CH.CO.C(OR):CH (XIX) (R = CH2Ph, R' = CHPh) (double m.p. 110° and 171-3°). IX (0.5 g.) and 0.32 g. 4-O2NC6H4CHO (XX) in 10 ml. AcOH refluxed 4 hrs., concentrated, the residue rubbed with 50% aqueous EtOH, and the solid (0.6 g.) crystallized from EtOH and MeOH gave XIX (R = CH2Ph, R' = CHC6H4NO2-4), m. 184-5°. XVI (0.3 g.) and 0.32 g. XX in 10 ml. AcOH refluxed 2 hrs., the solution scratched, and the precipitate (0.4 g.) filtered off and crystallized (N-methylpyrrolidone-EtOH) gave 4-O2NC6H4CH:NN.CMe:CH.CO.C(OH):CH, m. 259° (decomposition). V dibenzoate (Yabuta, CA 17, 1475)(7.0 g.) and 2.2 ml. II in 175 ml. MeOH boiled 1 hr., the solution evaporated, and the residue recrystd. twice from EtOH gave O.C(CH2OBz):CH.CO.C(OH):CH, m. 181-2°.

IT **98134-90-8**, 4(1H)-Pyridone, 1-amino-5-hydroxy-2-methyl-
98135-05-8, 4(1H)-Pyridone, 1-amino-5-hydroxy-2-(hydroxymethyl)-
100728-50-5, 4(1H)-Pyridone, 5-hydroxy-2-methyl-1-(p-nitrobenzylideneamino)-
(preparation of)

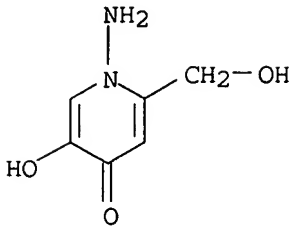
RN 98134-90-8 CAPLUS

CN 4(1H)-Pyridone, 1-amino-5-hydroxy-2-methyl- (6CI) (CA INDEX NAME)

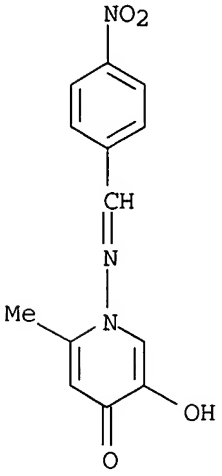


RN 98135-05-8 CAPLUS

CN 4(1H)-Pyridone, 1-amino-5-hydroxy-2-(hydroxymethyl)- (6CI) (CA INDEX NAME)



RN 100728-50-5 CAPLUS
CN 4(1H)-Pyridone, 5-hydroxy-2-methyl-1-(p-nitrobenzylideneamino)- (6CI) (CA INDEX NAME)



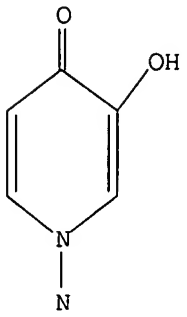
=> d his

(FILE 'HOME' ENTERED AT 11:43:11 ON 04 FEB 2005)

FILE 'REGISTRY' ENTERED AT 11:43:23 ON 04 FEB 2005
L1 STRUCTURE UPLOADED
L2 0 S L1
L3 STRUCTURE UPLOADED
L4 1 S L3
L5 16 S L3 FULL

FILE 'CAPLUS' ENTERED AT 11:45:10 ON 04 FEB 2005
L6 7 S L5

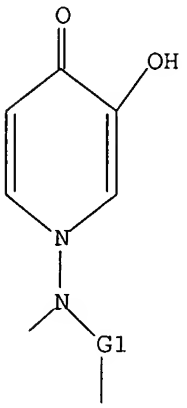
=> d l3
L3 HAS NO ANSWERS
L3 STR



G1 C,S,P

Structure attributes must be viewed using STN Express query preparation.

```
=> d l1
L1 HAS NO ANSWERS
L1                STR
```



G1 C,S,P

Structure attributes must be viewed using STN Express query preparation.

=>

PALM INTRANET

Day : Friday
Date: 2/4/2005
Time: 11:47:25

Inventor Name Search Result

Your Search was:

Last Name = LIU
First Name = SHUANG

Application#	Patent#	Status	Date Filed	Title	Inventor Name 51
60588448	Not Issued	020	07/15/2004	ARYL- AND HETEROARYL-SUBSTITUTED TETRAHYDROISOQUINOLINES AND USE THEREOF TO BLOCK REUPTAKE OF NOREPINEPHRINE, DOPAMINE, AND SEROTONIN	LIU, SHUANG
60543176	Not Issued	020	02/10/2004	CROWNED DITHIOCARBAMATE METAL COMPLEX PHARMACEUTICALS	LIU, SHUANG
60494959	Not Issued	159	08/13/2003	SUBSTITUTED PYRIDINONES	LIU, SHUANG
60478462	Not Issued	159	06/13/2003	CHELANTS AND MACROCYCLIC METAL COMPLEX RADIOPHARMACEUTICALS THEREOF	LIU, SHUANG
60478458	Not Issued	159	06/13/2003	CHELANTS AND MACROCYCLIC METAL COMPLEX RADIOPHARMACEUTICALS THEREOF	LIU, SHUANG
60354339	Not Issued	159	02/05/2002	N-SUBSTITUTED 3-HYDROXY-4-PYRIDINONES AND PHARMACEUTICALS CONTAINING THEREOF	LIU, SHUANG
60271389	Not Issued	159	02/26/2001	ASCORBIC ACID ANALOGS STABILIZERS FOR METALLORADIOPHARMACEUTICALS	LIU, SHUANG
60260618	Not Issued	159	01/09/2001	POLYPODAL CHELANTS FOR METALLOPHARMACEUTICALS	LIU, SHUANG
60260615	Not Issued	159	01/09/2001	TRIPODAL POLYAMINOPHOSPHONATES USEFUL FOR METALLOPHARMACEUTICALS	LIU, SHUANG
60216396	Not	159	07/06/2000	STABLE RADIOPHARMACEUTICAL	LIU,

	Issued			COMPOSITIONS AND METHODS FOR PREPARATION THEREOF	SHUANG
60213206	Not Issued	159	06/21/2000	VITROVITRONECTIN RECEPTOR ANTAGONIST PHARAMACEUTICALS	LIU, SHUANG
60195235	Not Issued	159	04/07/2000	NOVEL TERNARY LIGAND COMPLEXES USEFUL AS RADIOPHARMACEUTICALS	LIU, SHUANG
60195234	Not Issued	159	04/07/2000	MACROCYCLIC CHELANTS FOR METALLOPHARMACEUTICALS	LIU, SHUANG
60153512	Not Issued	159	09/13/1999	MACROCYCLIC CHELANTS FOR METALLOPHARMACEUTICALS	LIU , SHUANG
60112715	Not Issued	159	12/18/1998	PHARMACEUTICALS FOR THE IMAGING OF ANGIOGENIC DISORDERS	LIU , SHUANG
60080150	Not Issued	159	03/31/1998	METALLOPHARMACEUTICALS FOR THE IMAGING AND TREATMENT OF CANCER	LIU , SHUANG
60013360	Not Issued	159	03/13/1996	TERNARY RADIOPHARMACEUTICAL COMPLEXES	LIU , SHUANG
10918826	Not Issued	020	08/13/2004	SUBSTITUTED PYRIDINONES	LIU, SHUANG
10876893	Not Issued	030	06/25/2004	POLYPODAL CHELANTS FOR METALLOPHARMACEUTICALS	LIU, SHUANG
10864857	Not Issued	030	06/09/2004	CHELANTS AND MACROCYCLIC METAL COMPLEX RADIOPHARMACEUTICALS THEREOF	LIU, SHUANG
10864792	Not Issued	020	06/09/2004	CHELANTS AND MACROCYCLIC METAL COMPLEX RADIOPHARMACEUTICALS THEREOF	LIU, SHUANG
10803724	Not Issued	030	03/18/2004	N-SUBSTITUTED 3-HYDROXY-4-PYRIDINONES AND PHARMACEUTICALS CONTAINING THEREOF	LIU, SHUANG
10742494	Not Issued	030	12/19/2003	ACYCLIC PYRAZOLE COMPOUNDS FOR THE INHIBITION OF MITOGEN ACTIVATED PROTEIN KINASE-ACTIVATED PROTEIN KINASE-2	LIU, SHUANG
10663090	Not Issued	092	09/15/2003	MACROCYCLIC CHELANTS FOR METALLOPHARMACEUTICALS	LIU, SHUANG
10641688	Not Issued	092	08/14/2003	LABELED MACROPHAGE SCAVENGER RECEPTOR ANTAGONISTS FOR IMAGING	LIU, SHUANG

				ATHEROSCLEROSIS AND VULNERABLE PLAQUE	
10622246	Not Issued	041	07/18/2003	PHARMACEUTICALS FOR THE IMAGING OF ANGIOGENIC DISORDERS	LIU, SHUANG
10467815	Not Issued	020	08/12/2003	DIGITAL AUDIO PROCESSOR	LIU, SHUANG MING
10367987	Not Issued	041	02/14/2003	SUBSTITUTED PYRIDINONES	LIU, SHUANG
10358835	6825204	150	02/05/2003	N-SUBSTITUTED 3-HYDROXY-4-PYRIDINONES AND PHARMACEUTICALS CONTAINING THEREOF	LIU, SHUANG
10342081	6800273	150	01/14/2003	PHARMACEUTICALS FOR THE IMAGING OF ANGIOGENIC DISORDERS	LIU, SHUANG
10151663	Not Issued	061	05/20/2002	RADIOPHARMACEUTICALS FOR IMAGING INFECTION AND INFLAMMATION	LIU, SHUANG
10109374	Not Issued	041	03/27/2002	RADIOPHARMACEUTICALS FOR IMAGING INFECTION AND INFLAMMATION	LIU, SHUANG
10081258	6713042	150	02/22/2002	ASCORBIC ACID ANALOGS FOR METALLORADIOPHARMACEUTICALS	LIU, SHUANG
10080974	Not Issued	095	02/22/2002	LABELED MACROPHAGE SCAVENGER RECEPTOR ANTAGONISTS FOR IMAGING ATHEROSCLEROSIS AND VULNERABLE PLAQUE	LIU, SHUANG
10033770	6776977	150	12/27/2001	POLYPODAL CHELANTS FOR METALLOPHARMACEUTICALS	LIU, SHUANG
10033769	Not Issued	041	12/27/2001	POLYPODAL CHELANTS FOR METALLOPHARMACEUTICALS	LIU, SHUANG
10033765	6517814	150	12/27/2001	NEW MACROCYCLIC CHELANTS USEFUL FOR METALLOPHARMACEUTICALS	LIU, SHUANG
09899629	Not Issued	121	07/05/2001	STABLE RADIOPHARMACEUTICAL COMPOSITIONS AND METHODS FOR PREPARATION THEREOF	LIU, SHUANG
09826549	6565828	150	04/05/2001	MACROCYCLIC CHELANTS FOR METALLOPHARMACEUTICALS	LIU, SHUANG
09826449	6534038	150	04/05/2001	TERNARY LIGAND COMPLEXES USEFUL AS	LIU, SHUANG

				RADIOPHARMACEUTICALS	
09660377	6685914	150	09/12/2000	MACROCYCLIC CHELANTS FOR METALLOPHARMACEUTICALSS	LIU, SHUANG
09599295	6537520	150	06/21/2000	PHARMACEUTICALS FOR THE IMAGING OF ANGIOGENIC DISORDERS	LIU, SHUANG
09281474	Not Issued	041	03/30/1999	PHARMACEUTICALS FOR THE IMAGING OF ANGIOGENIC DISORDERS	LIU , SHUANG
09277936	6251364	150	03/29/1999	NOVEL TERNARY LIGAND COMPLEXES USEFUL AS RADIOPHARMACEUTICALS	LIU , SHUANG
09013320	6010679	150	01/26/1998	TERNARY RADIOPHARMACEUTICAL COMPLEXES	LIU , SHUANG
08999400	6022523	150	12/29/1997	RADIOLABELED PLATELET GPIIB/IIIA RECEPTOR ANTAGONISTS AS IMAGING AGENTS FOR THE DIAGNOSIS OF THROMBOEMBOLIC DISORDERS	LIU , SHUANG
08956313	6015904	150	10/23/1997	STABLE REAGENTS FOR THE PREPARATION OF RADIOPHARMACEUTICALS	LIU , SHUANG
08943659	6416733	150	10/03/1997	RADIOPHARMACEUTICALS FOR IMAGING INFECTION AND INFLAMMATION	LIU , SHUANG
08864586	6403054	150	05/28/1997	NEW TERNARY LIGAND COMPLEXES USEFUL AS RADIOPHARMACEUTICALS	LIU , SHUANG
08476296	5750088	150	06/07/1995	STABLE HYDRAZONES LINKED TO A PEPTIDE MOIETY AS REAGENTS FOR THE PREPARATION OF RADIOPHARMACEUTICALS	LIU , SHUANG
08218861	5879657	150	03/28/1994	RADIOLABELED PLATELET GPIIB/IIIA RECEPTOR ANTAGONISTS AS IMAGING AGENTS FOR THE DIAGNOSIS OF THROMBOEMBOLIC DISORDERS	LIU , SHUANG

Search and Display More Records.

Search Another: Inventor

Last Name Liu **First Name** Shuang

Search

To go back use Back button on your browser toolbar.

Back to PALM | ASSIGNMENT | OASIS | Home page